

09/998142

CROSS REFERENCE TO RELATED APPLICATIONS

12-26-04
This application is a continuation of U.S. Patent Application No. 09/386,610, filed August 31, 1999, and issued on October 30, 2001, as U.S. Patent No. 6309524; which is a continuation of International PCT Patent Application No. PCT/US99/15847, filed in the English language on July 12, 1999; ^{which is a continuation} which claims priority from U.S. Patent Application Serial No. 09/113,723, filed July 10, 1998, U.S. Provisional Application Serial No. 60/111,232, filed December 7, 1998, and U.S. Provisional Application Serial No. 60/119,668, filed February 11, 1999.

In the Claims:

Please cancel claims 20-26, 41 and 42.

REMARKS

Claims 1-19 and 27-40 are presently pending in the subject application. Claims 20-26, 41 and 42 have been cancelled. No new matter has been added by way of this amendment.

1. A reactor for plating a metal onto a surface of a workpiece comprising:
a reactor bowl including an electroplating solution disposed therein;
an anode disposed in the reactor bowl in contact with the electroplating solution;

a contact assembly spaced from the anode within the reactor bowl the contact assembly including

a plurality of contacts disposed to contact a peripheral edge of the surface of the workpiece, the plurality of contacts executing a wiping action against the surface of the workpiece as the workpiece is brought into engagement therewith, and

a barrier disposed interior of the plurality of contacts and including a member disposed to engage the surface of the workpiece to effectively isolate the plurality of contacts from the electroplating solution.